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Sender: aeromod@IX.NETCOM.COM
To: 9-NPRM-CMTS
Priority: Normal
Subject: Comments: Docket FAA-1998-4731 — 7

Attached please find comments, in .pdf form, to the above referenced Docket.

Regards,

Richard S. Adler
Aeromod Services, Inc.

FAA_1998.PDF

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January 19, 1999

Docket No. FAA-1 998-4731
Notice No. 98-16

Comments:

Section G36.107 Noise Measurement Procedures

There is no objection to the proposed change. Using a ground plane microphone provides data which are applicable to both FAA and ICAO certification activities, eliminating duplication of equipment or testing. The additional equipment requirem is negligible.

Section G36.201 Corrections to Test Results

G36.201 (b)
Object to the proposed change on the basis that it harmonizes in the wrong direction This section should be placed on the list for JAR 36 harmonization with FAR 36.

If we examine the existing FAA and ICAO noise rules, we find that the only rule whi does not have a primary or absolute acoustical reference day [illegible] 77 is Annex 16, Chapter 10. All of the other noise rules, to include FAR 36 Appendix A Current Appendix G, Appendix H, Appendix J, ICAO Annex 16 Chapter 3, Chapter 4 and Chapter 8, use F70%RH as the primary or absolute acoustical reference day.

Based on my experience, first as the Chicago ACO Noise Certification Specialist, an subsequently as an Acoustical DER, I am unaware of an instance of confusion and delay caused by the difference in performance and acoustic reference conditions, as mentioned in the Notice.

G36.201 (c)
There is no objection to the proposed change.

G36.201 (d)(l)
The proposed change to the equation for atmospheric absorption is indeed more accurate. However, if the comments provided for section 36.201 (b) above are adopted, the 0.7 constant in the equation would need to be changed to 0.9, which is

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the proper constant for a 70% RH reference day. The equation currently published in FAR 36, Appendix G is incorrect for the current acoustic reference day and has been for more than 10 years. The current published equation, using a 0.7 constant, actually corrects to a 70% RH, resulting in a 0.2 dB error which is detrimental to the applicant.

G36.201 (d)(4)
There is no objection to the proposed change, The option to determine the value of K_3 experimentally, as is allowed for such corrections, is a welcome addition to the rule.

Section G36.301 Aircraft Noise Limits

G36.301
There is no objection to the proposed change to the noise limits associated with the use of a ground plane microphone.

There is no objection to the proposed change to the method of calculating noise lim within the variable range. In fact, in some cases in the variable range, a change to based weights is slightly relieving in nature compared to current appendix G. It is suggested that, to avoid confusion for those of us who are logarithmically challenge the exact equation for noise levels within the variable range be published in append G. Something on the order of: -26.23+32.76log(W), where W is the aircraft weight, in pounds, is suggested.

I hope that you find these comments useful. If you require further information or wish to discuss these comments, please feel free to contact me by phone or fax.

Regards,

Richard S. Adler
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FAA DER - Acoustics, FAR 21 Management, Flight Analyst